

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: W40 NEMA Premium Efficiency Three-Phase	Product code :	14497420	
		Catalog # :	05036OT3H324TSC-W40	
Frame	: 324TSC	Locked rotor time	: 25s (cold) 14s (hot)	
Output	: 50 HP (37 kW)	Temperature rise	: 80 K	
Poles	: 2	Duty cycle	: Cont.(S1)	
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C	
Rated voltage	: 575 V	Altitude	: 1000 m.a.s.l.	
Rated current	: 47.5 A	Protection degree	: IP23	
L. R. Amperes	: 299 A	Cooling method	: IC01 - ODP	
LRC	: 6.3x(Code G)	Mounting	: F-1	
No load current	: 18.0 A	Rotation ¹	: Both (CW and CCW)	
Rated speed	: 3560 rpm	Noise level ²	: 75.0 dB(A)	
Slip	: 1.11 %	Starting method	: Direct On Line	
Rated torque	: 73.8 ft.lb	Approx. weight ³	: 431 lb	
Locked rotor torque	: 200 %			
Breakdown torque	: 220 %			
Insulation class	: F			
Service factor	: 1.25			
Moment of inertia (J)	: 3.02 sq.ft.lb			
Design	: B			
Output	25% 50% 75% 100%	Foundation loads		
Efficiency (%)	91.5 91.7 93.0 93.0	Max. traction		
Power Factor	0.46 0.72 0.81 0.84	Max. compression		
		<u>Drive end</u>	<u>Non drive end</u>	
Bearing type	:	6312 Z C3	6211 Z C3	
Sealing	:	Without Bearing Seal	Without Bearing Seal	
Lubrication interval	:	19658 h	20000 h	
Lubricant amount	:	21 g	11 g	
Lubricant type	:	Mobil Polyrex EM		
Notes				
This revision replaces and cancel the previous one, which must be eliminated. (1) Looking the motor from the shaft end. (2) Measured at 1m and with tolerance of +3dB(A). (3) Approximate weight subject to changes after manufacturing process. (4) At 100% of full load.		These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



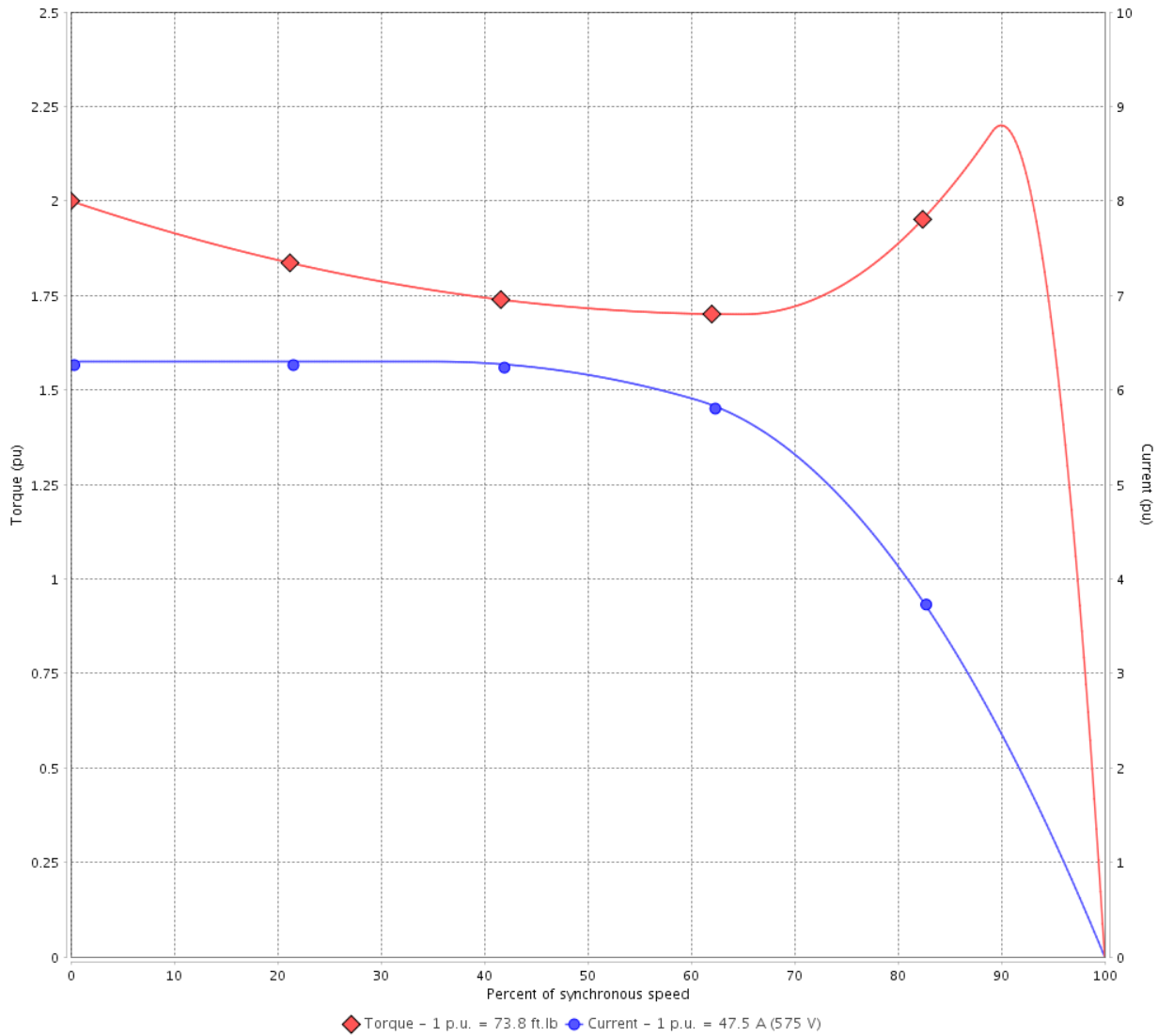
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14497420

Catalog # : 050360T3H324TSC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 2P

Rated current	: 47.5 A	Moment of inertia (J)	: 3.02 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 73.8 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 3560 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

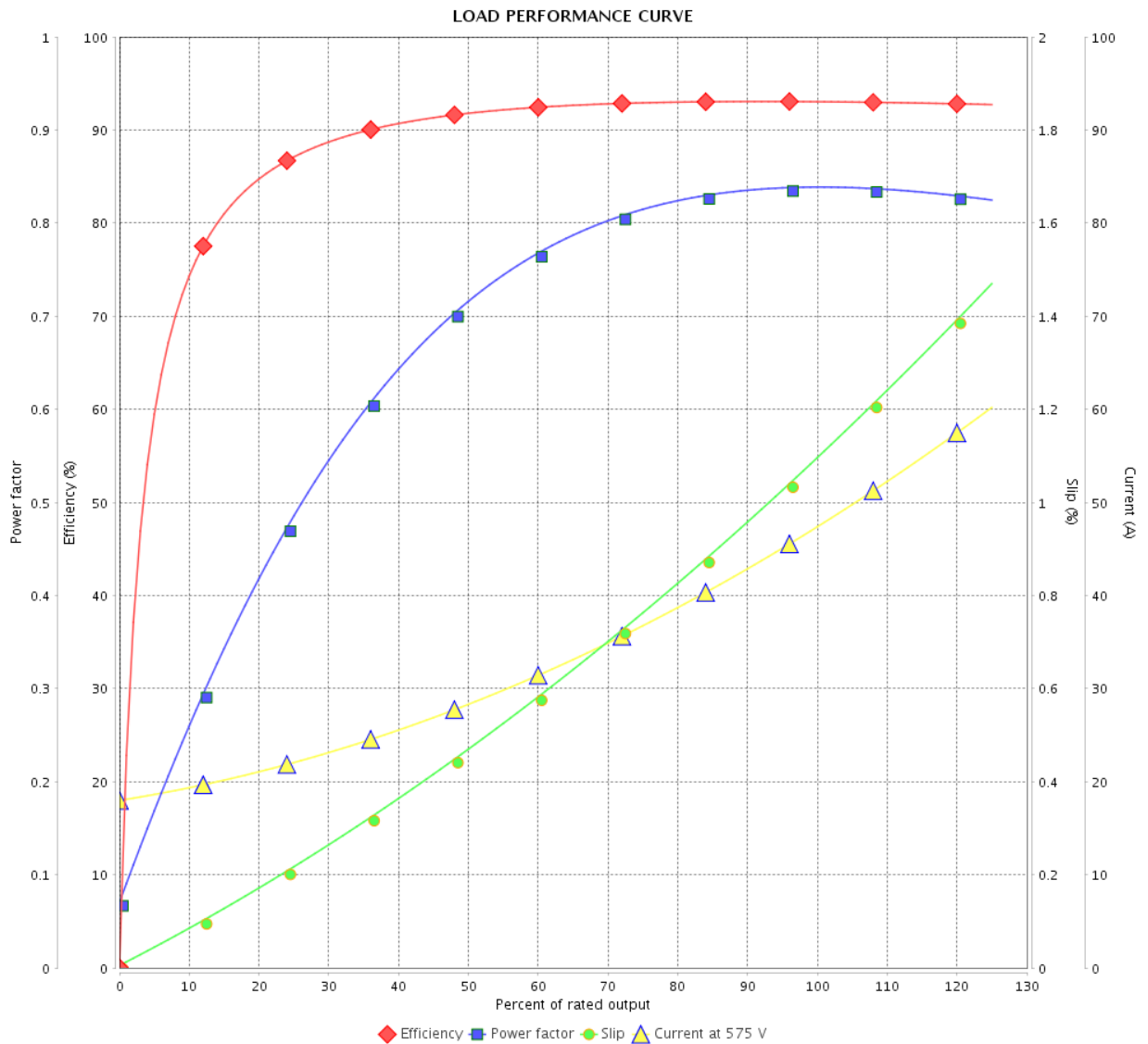


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Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14497420

Catalog # : 05036OT3H324TSC-W40



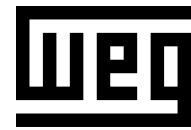
Performance : 575 V 60 Hz 2P

Rated current : 47.5 A
 LRC : 6.3
 Rated torque : 73.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 220 %
 Rated speed : 3560 rpm

Moment of inertia (J) : 3.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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Date		12/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

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Three-Phase

Product code : 14497420

Catalog # : 05036OT3H324TSC-W40

Performance : 575 V 60 Hz 2P

Rated current : 47.5 A	Moment of inertia (J) : 3.02 sq.ft.lb
LRC : 6.3	Duty cycle : Cont.(S1)
Rated torque : 73.8 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.25
Breakdown torque : 220 %	Temperature rise : 80 K
Rated speed : 3560 rpm	Design : B

Heating constant

Cooling constant

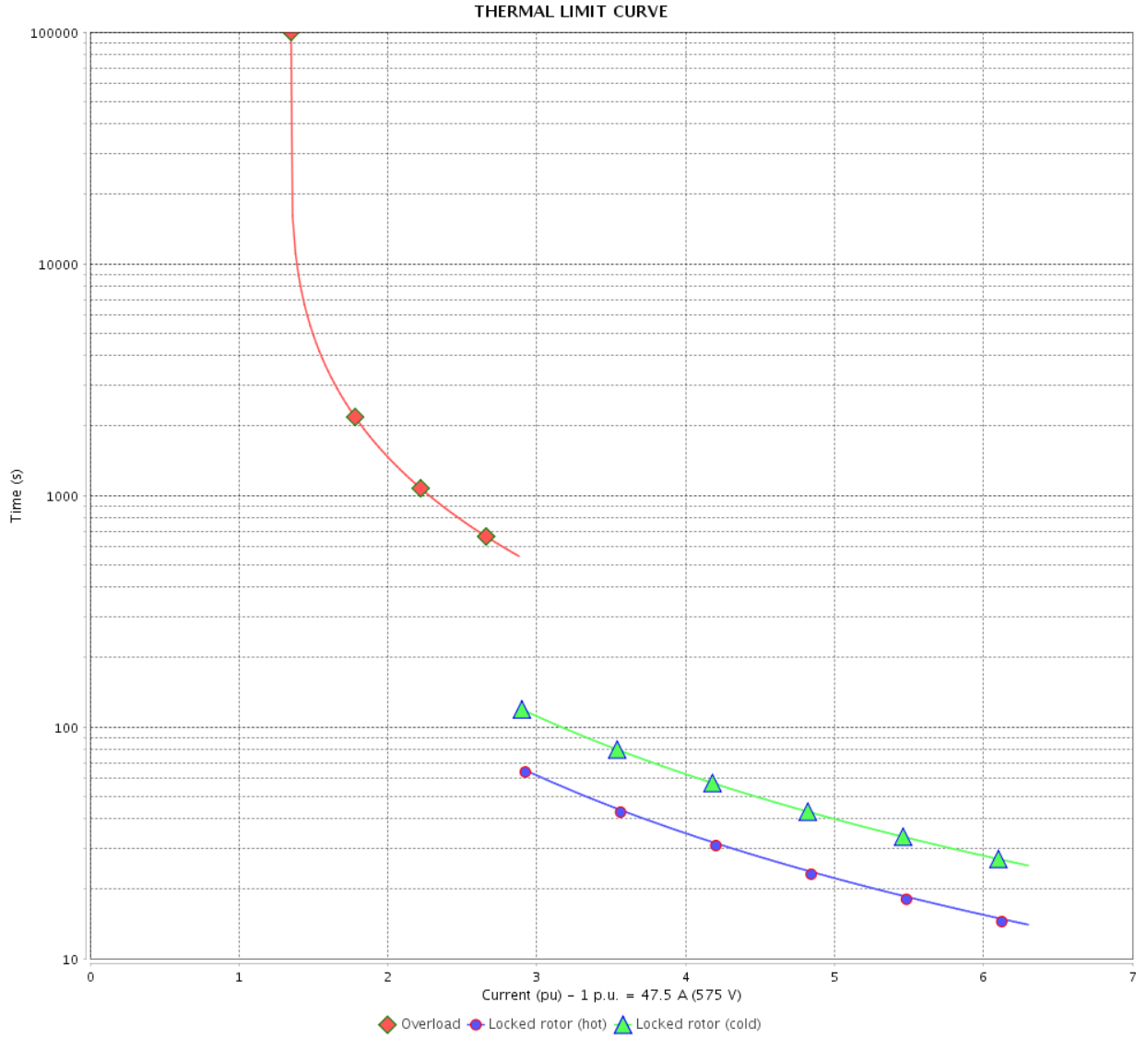
Rev.	Changes Summary	Performed	Checked	Date
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Checked by				
Date	12/04/2022			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



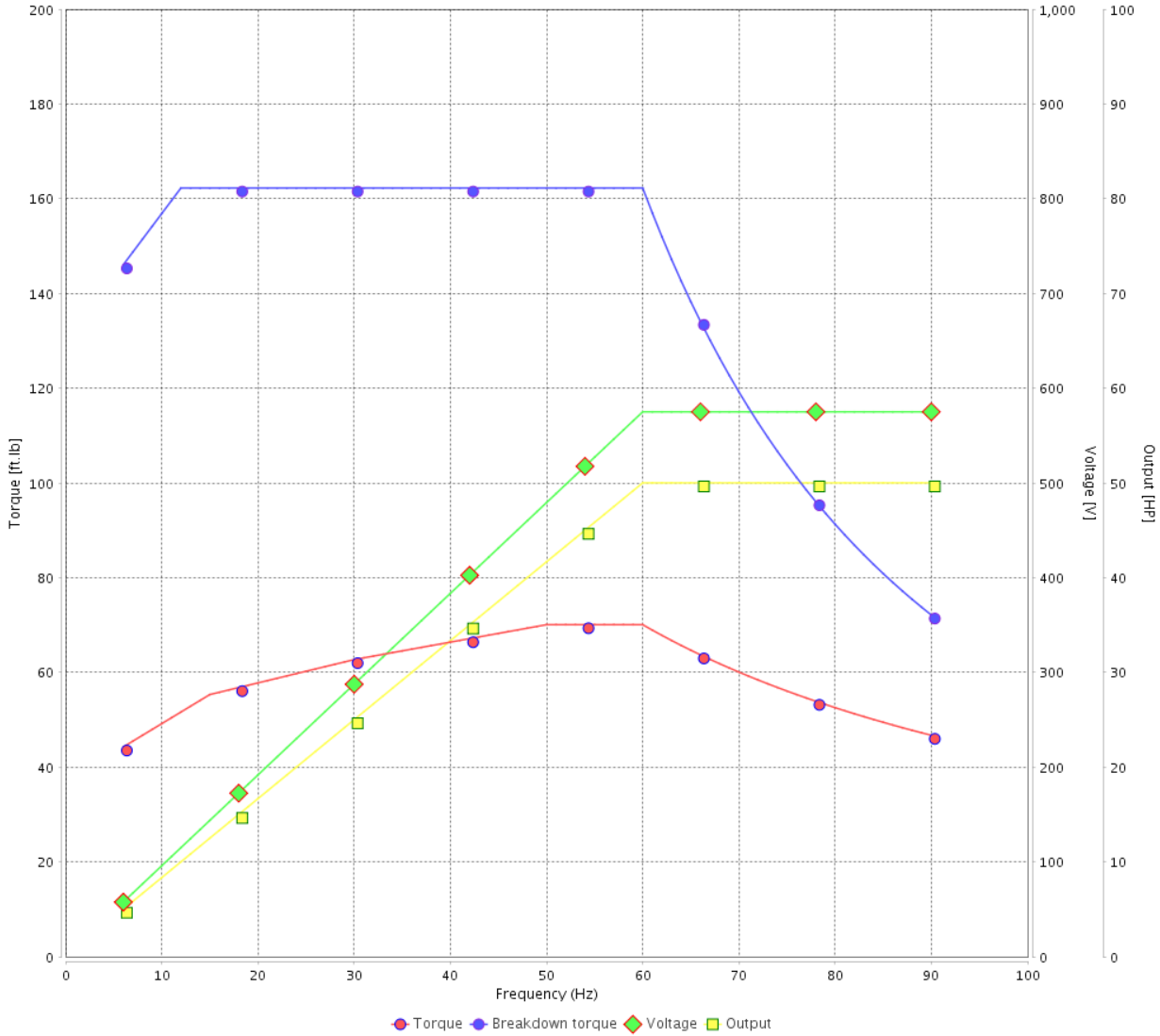
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VFD OPERATION CURVE



Performance : 575 V 60 Hz 2P

Rated current : 47.5 A
 LRC : 6.3
 Rated torque : 73.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 220 %
 Rated speed : 3560 rpm

Moment of inertia (J) : 3.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

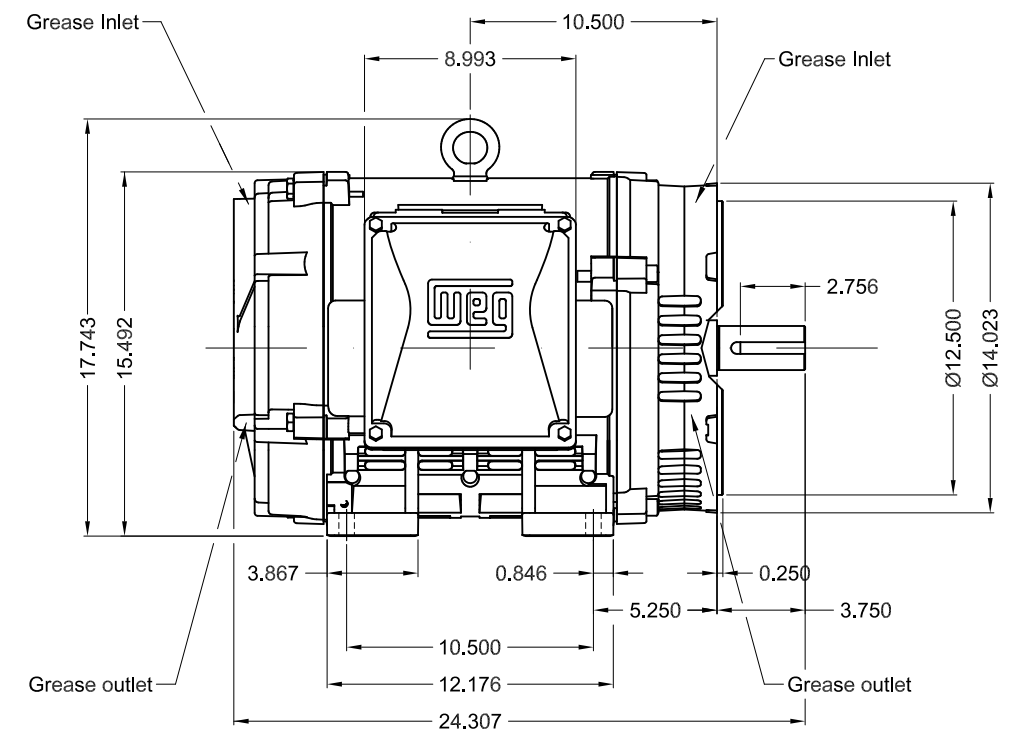
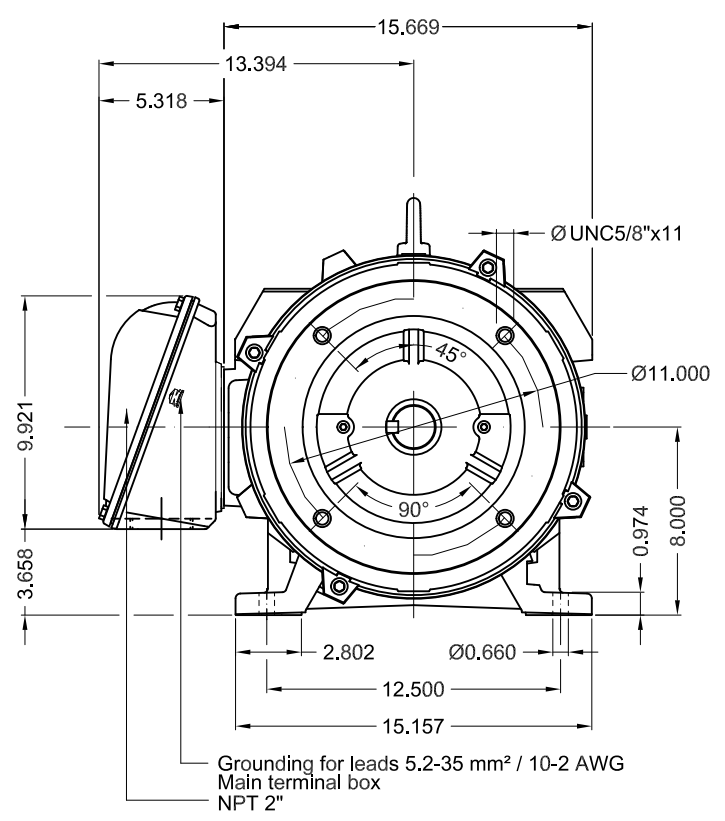
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Date	12/04/2022			

1 2 3 4 5 6

A

B

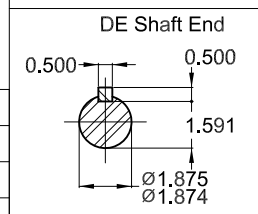
C



D

E

Color RAL 5009
 Painting plan 203A
 Mounting NEMA F-1
 Mounting B34R(D)



50 HP 02 Poles 60 Hz A

1:8

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 324TSC IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
 WDD



WEG **W40 NEMA**
CC029A Premium
Inverter Duty Motor



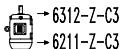
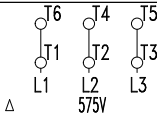
IEC 60034-1
 MOD.T01#FOXON



For use on PWM, VT 1000:1, CT 3:1, 1.0SF

CP050502NPW40
 MADE IN BRAZIL
 14497420

PH 3	FR 324TSC	HP(kW) 50(37)		Hz 60
V 575		A 47.5		IP23
NEMA NOM EFF		93.0	%	RPM 3560
ENCL ODP	DUTY CONT.		INS. CL. F Δ T 80 K	
PF 0.84		DES B	CODE G	AMB. 40°C
SF 1.25	SFA 59.4		ALT 1000 m.a.s.l.	



→ 6312-Z-C3
 → 6211-Z-C3

MOBIL POLYREX EM
 21 g 19658 h

430 Lbs